Stat and Data Analysis: 5.3 Examples NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

For each situation state:

1. The sample
2. The sampling frame
3. The population
4. The statistic (either a number or described)
5. The parameter of interest (described. “the true…”)
6. The sampling method (if known)
7. The possible errors that could have occurred. Be specific!!
8. How do Americans feel about government help for the poor? In two SRS of 500 American citizens, only 13% think we are spending too much on "assistance to the poor", but 44% think we are spending too much on "welfare."
9. A SRS of 425 voters in PA found that 54% of voters will vote for Senator Arlen Specter in the coming election for the state senate seat. The actual value of voters is 56%.
10. A political candidate is interested in running for mayor of a large town. To see if he would succeed or not he has his staff randomly select a few blocks in the city to survey. The staff then head out in the morning and go to each house in that block to ask the residents if they would vote for the candidate.
11. A polling company employs 40 pollsters to conduct phone interviews with randomly selected phone numbers of American citizens. One of the questions asked subjects to rate, from 1 to 5, how the President is doing so far. Jack, an employed pollster, mistakenly thinks that a 1 is bad when it means good. He consistently enters the wrong numbers.
12. The administration of the school wishes to know what percent of the students have cheated on an exam before. An assistant principal creates an SRS of 100 students from all the grades and calls each down to his office to ask the student if they have cheated on an exam that semester. He found that 99% of the students have not cheated.
13. The administration of the school wishes to know if parents would like to have an afterschool science program for elementary children. The school sends out 20,000 letters to the parents of elementary children. They receive 149 responses in which 128 said they would like to have the program.

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